

Wednesday, December 07, 2016 11:09:16 A

Page 1

MAR 21 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐																						
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐																						
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐																						
Large Fab ☐	Composite ☐	Supplier ☐																							
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																		
Description Work Order Deviation				Disposition																					
								Completed By																	
								Lead hand / Supervisor Approval Verification																	
								QC / QA Coordinator Approval																	
Root Cause		FAULT CATEGORY																							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	OTHER : _____																			

Work Order ID 154277

Wednesday, December 07, 2016 11:09:16 A

154277

Page 2

Item ID: 644.4102 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Pivot Step Assembly
Start Date: 12/23/2016 Start Qty: 7.00 ***7*** Cust Item ID:
Required Date: 12/23/2016 Req'd Qty: 7.00 ***7*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
140	QC21- Final Inspection - Work Order Release	0.00							
140							DAS		MAR 2 1 2017
QC	Memo	0.12					21		
Quality Control							9-89		

DAS
21
9-89**MAR 2 1 2017**

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			
				Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : ☐					

Picklist Print

Wednesday, December 07, 2016 11:09:19 AM

Page 1

Work Order ID: 154277

154277

Parent Item: 644.4102

644 4102

Parent Item Name: Pivot Step Assembly

Start Date: 12/23/2016

Required Date: 12/23/2016

Start Qty: 7.00

Required Qty: 7.00

Comments: IPP REV:A 16.12.06 NEW ISSUE DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
644.4104 *644 4104* FWD Bracket Assembly		Purchased	No				Each	0.0000	** 8154277	7		(7)	DAS 6 9-89
644.4114 *644 4114* Washer, Pivot		Purchased	No				Each	0.0000	** 154283	7			
AN310-5 *AN310-5* Nut		Purchased	No				Each	31.0000	**	7			DAS 6 9-89 FEB 02 2017
Location ST331 m135672 Loc Qty 31 31 Loc Code													
MS21044N5 *MS21044N5* NUT		Purchased	No				Each	100.0000	**	7			DAS 6 9-89
Location ST302 m129624 Loc Qty 100 100 Loc Code													
MS24665-210 *MS24665-210* Cotter Pin		Purchased	No				Each	0.0000	**	7			DAS 6 9-89
AN5-50 *AN5-50* Bolt		Purchased	No				Each	0.0000	**	7			DAS 6 9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			
				Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

Picklist Print

Wednesday, December 07, 2016 11:09:19 AM

Page 2

Work Order ID: 154277

154277

Parent Item: 644.4102

644 4102

Parent Item Name: Pivot Step Assembly

Start Date: 12/23/2016

Required Date: 12/23/2016

Start Qty: 7.00

Required Qty: 7.00

NAS1149C0563R

Purchased

No

Each

331.0000

28

NAS1149C0563R

Washer

**

DAS

6
9-89

FEB 02 2017

Location

Loc Qty

Loc Code

ST265

331

m131697

331

644.4119

Purchased

No

Each

0.0000

14

644 4119

Spacer, Fwd Stop

**

DAS

6
9-89

FEB 02 2017

644.4121

Purchased

No

Each

0.0000

14

644 4121

Washer, Nylon

**

DAS

6
9-89

FEB 02 2017

644.4122

Purchased

No

Each

0.0000

7

644 4122

EC145 Fwd Crosstube Bushings

**

DAS

6
9-89

FEB 02 2017

644.4123

Purchased

No

Each

0.0000

7

644 4123

EC145 Fwd Crosstube Bushing

**

DAS

6
9-89

FEB 02 2017

644.4124

Purchased

No

Each

0.0000

7

644 4124

Washer, Pivot

**

DAS

6
9-89

FEB 02 2017

AN5-45

Purchased

No

Each

5.0000

7

AN5-45

Bolt

**

DAS

6
9-89

FEB 02 2017

Location

Loc Qty

Loc Code

ST335

5

m128028

5

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____			
Misidentified ☐	Past Due ☐				

APICAL

INDUSTRIES, INC.

ENGINEERING CHANGE NOTICE NO. 04489

SHEET 1 OF 1

DWG NO. 644,4100

REV: F

PREPARED BY: J. BECKER

DATE: 04/08/14

EFFECT ON DWG
☐ INC. ☒ UNINC.

DWG TITLE: PIVOT STEP ASSY

APPROVED BY:

ENGR

MFG

QC

EFF:

NEXT ORDER

TRANSACTION
A-ADD
R-REVISE

CODES (C)
C-CREATE
D-DELETE

REASON: UPDATE NOTE 4, FINISH SPECIFICATION.

NOTES

1. IDENTIFY ALL PARTS IN ACCORDANCE WITH MPP-120
2. MATERIAL: 2024-T3 ALUMINUM
3. MATERIAL: 6061-T6 ALUMINUM
4. FINISH IAW MPP-172 SECTION 2.1, SECTION 3.1, SECTION 4.1, SECTION 5.2.
5. MATERIAL: MDS-FILLED NYLON 6/6 SHEET, CUT OD CIRCLE USING 2" GASKET PUNCH, CUT ID HOLE USING 1/4" GASKET PUNCH
6. MATERIAL: MDS-FILLED NYLON 6/6 SHEET, CUT OD CIRCLE USING 2" GASKET PUNCH, CUT ID HOLE USING 5/16" GASKET PUNCH
7. DIMENSION VALUE HAS FINISH COATING OF 6-10 MIL (.006-.010) TAKEN INTO CONSIDERATION
8. ADD ADDITIONAL WASHER UNDERNEATH CASTLE NUTS IF NECESSARY.
9. FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE III CLASS 2, COLOR BLACK.

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 152277 *ms*
16-12-08

SHEET 1, NOTES IS:

DOCUMENTS EFFECTED:

☐ MDL ☐ INSTALL INSTRU ☐ ICA ☐ BOM

CHANGE CATEGORY
☐ MAJOR ☒ MINOR

DER REVIEW REQUIRED
☐ YES ☒ NO

APICAL

INDUSTRIES, INC.

ENGINEERING CHANGE NOTICE NO.

04286

SHEET 1 OF 1

DWG NO. 644.4100

REV: F

PREPARED BY J. SOTO

DATE: 12/04/2013

EFFECT ON DWG
☐ INC. ☒ UNINC.

DWG TITLE: PIVOT STEP ASSY

APPROVED BY:

ENGR

[Signature]

MFG

[Signature]

QC

[Signature]

EFF.

NEXT ORDER

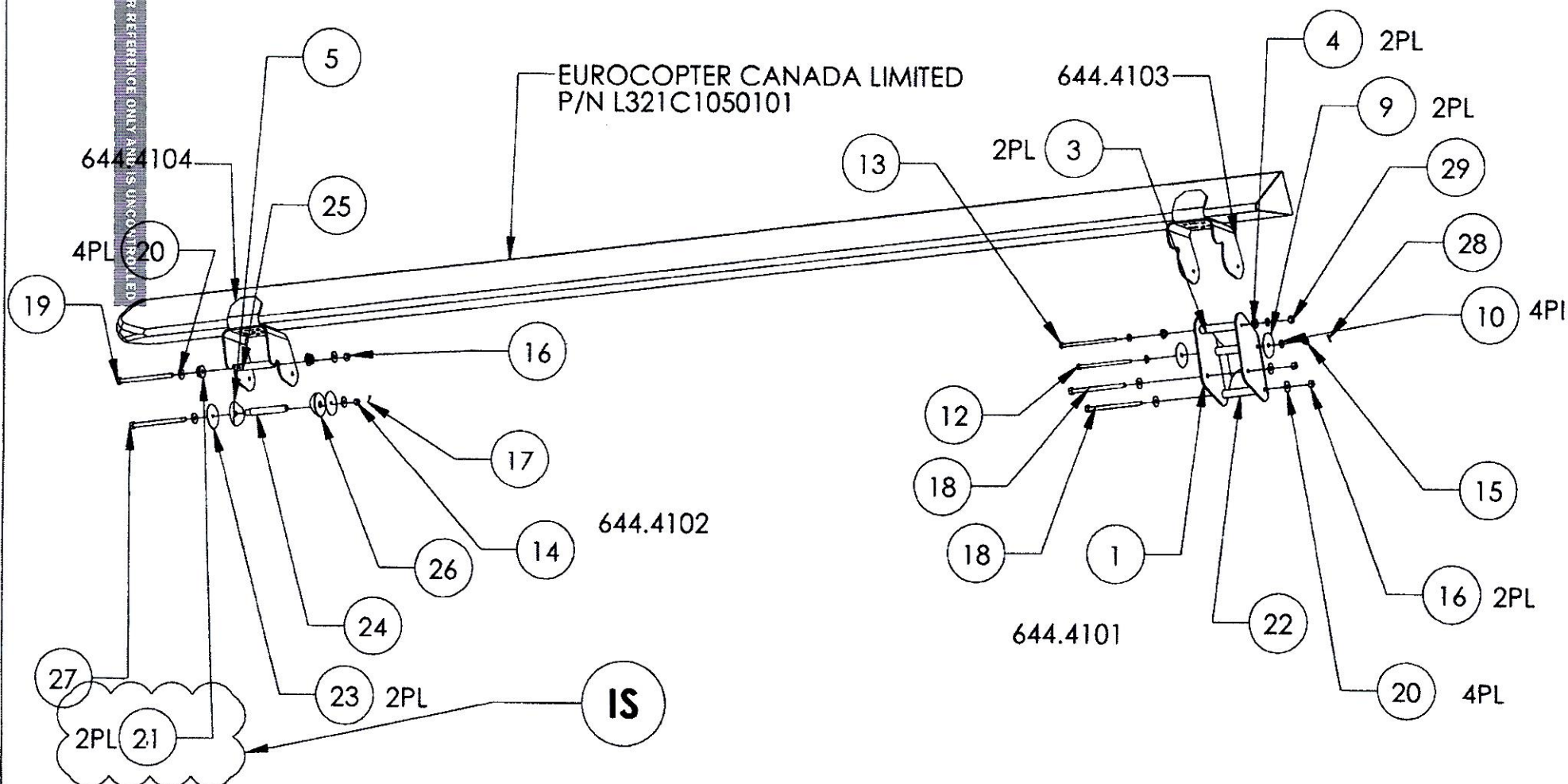
TRANSACTION CODES (TC):
A-ADD
R-REVISE
C-CREATE
D-DELETE

REASON: REVISED F/N CALL OUT FROM 22 TO 21

ECR:

13-151

SHEET 1, ZONE D1 IS:



DOCUMENTS EFFECTED:

☐ MDL ☐ INSTALL INSTRUCTIONS ☐ ICA ☐ FMS ☐ BOM

CHANGE CATEGORY

☐ MAJOR ☒ MINOR

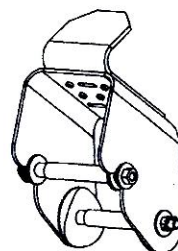
DER REVIEW REQUIRED

☐ YES ☒ NO

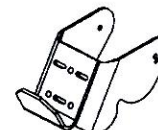
NOTES:

-

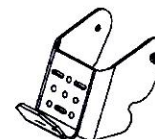
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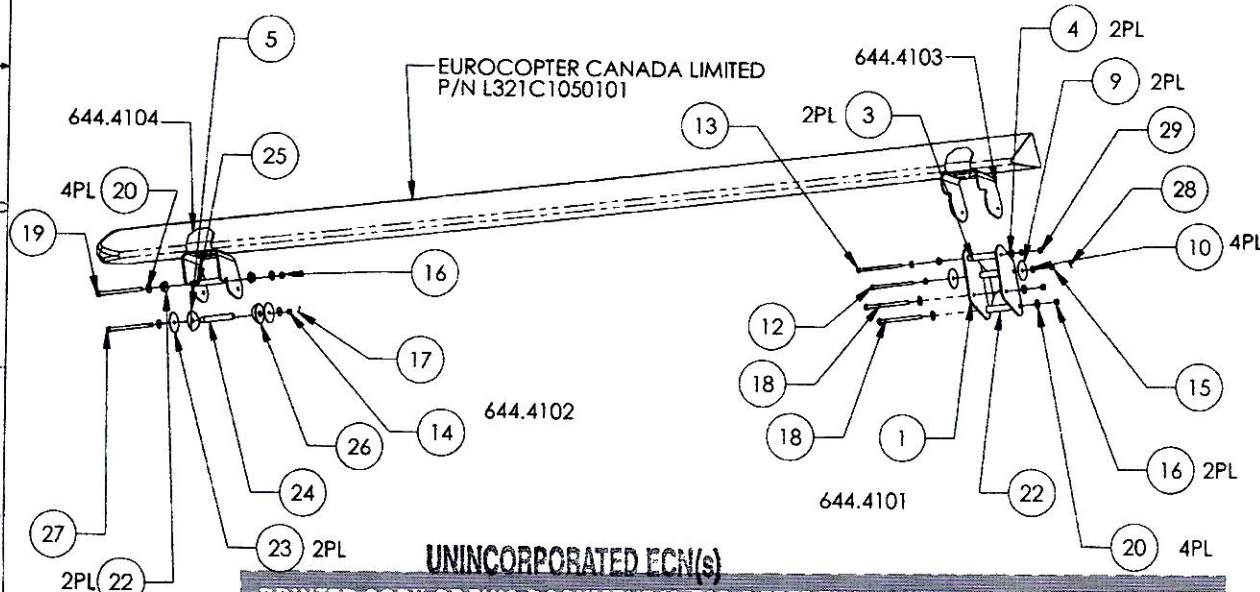
644.4102



644.4103



644.4104



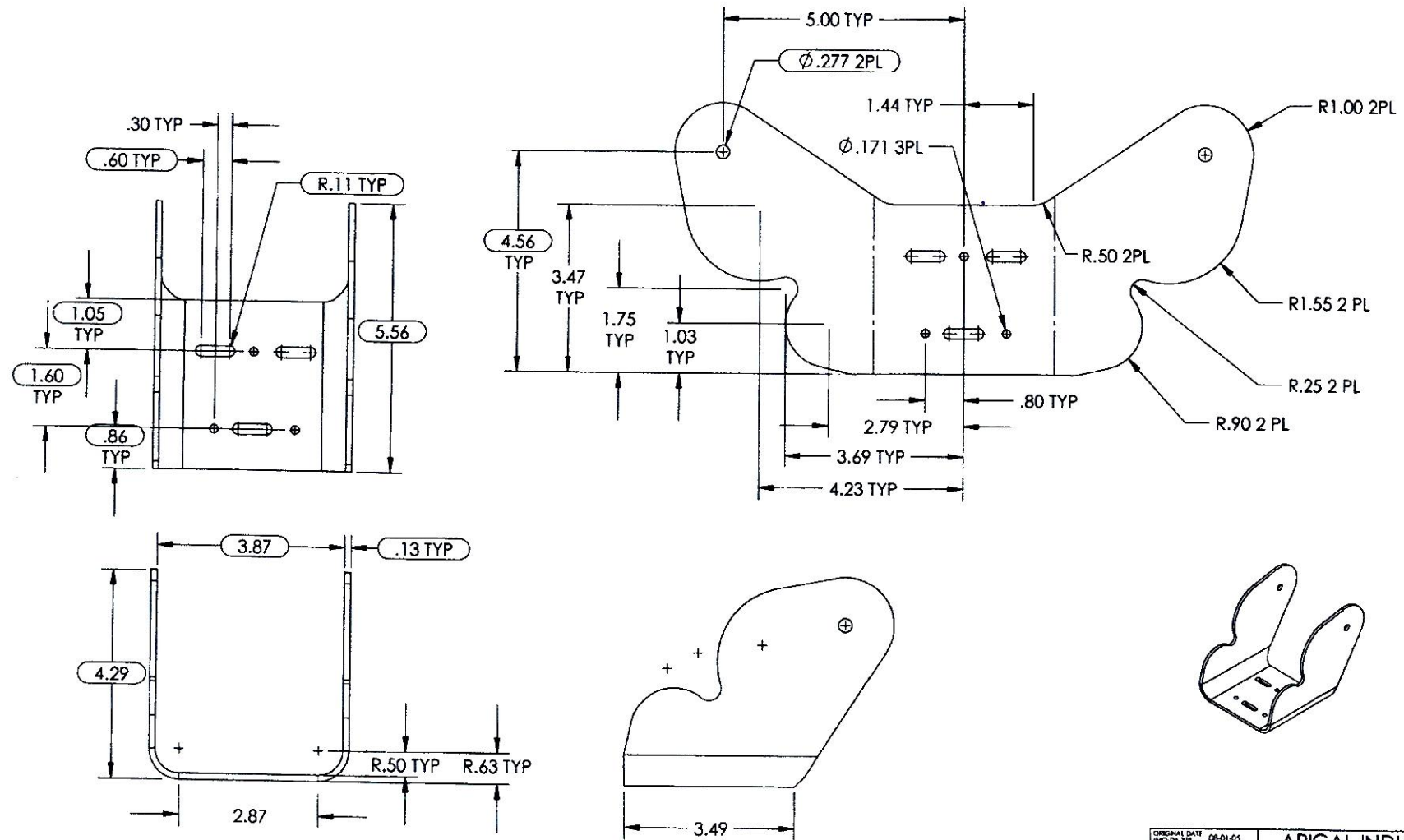
UNINCORPORATED ECN(s)

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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INCORPORATED ECH 01310 01322 01332 & 01357.	11-29-05	S. JOSEPH
B	INCORPORATED ECH 01310 01418 01796 & 01838.	05-21-07	P. BRAVO
C	INCORPORATED ECH 01408 02336 03022	12-16-10	P. BRAVO
D	INCORPORATED ECH 01111 03113 03208 & 03740	12-10-12	P. BRAVO
E	INCORPORATED ECH 00941	06-19-13	P. BRAVO
F	INCORPORATED ECH 00000	2-20-15	E. BROWN

[illegible]

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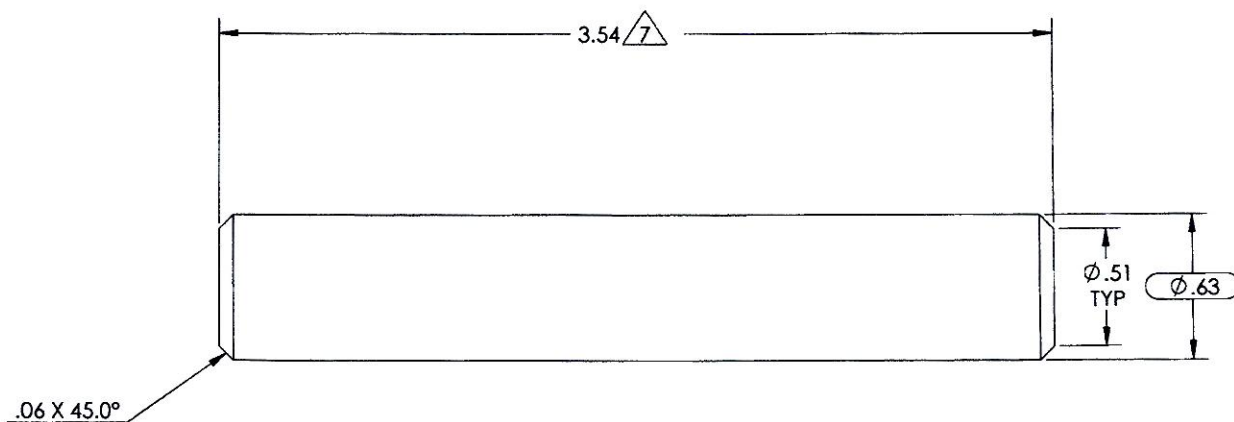


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644.4111
BRACKET, AFT PIVOT

ORIGINAL DATE: 08-01-05		APICAL INDUSTRIES	
DRAWN BY: CHUCKER		2408 TEMPLE HEIGHTS DR.	
CHECKED BY: S. JOSEPH		OCEANSIDE, CA. 92056-3512 (760)724-5300	
DRAWING APPROVAL: S. JOSEPH 08-29-05		PIVOT STEP ASSY	
CONTRACT NO.		SCALE: NONE	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ± .03 3 PLACE DECIMALS ± .010 ANGLES 2° ± 3°		REV. B	REV. F
CAGE CODE: 07M26	DWG. NO. 644.4100	SHEET 3 OF 14	

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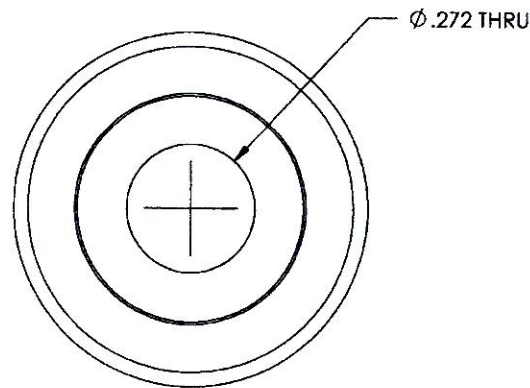
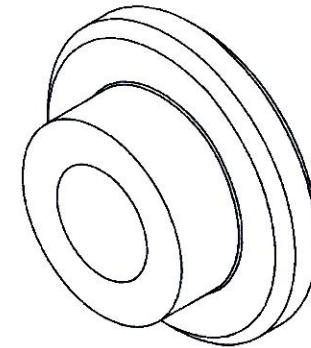
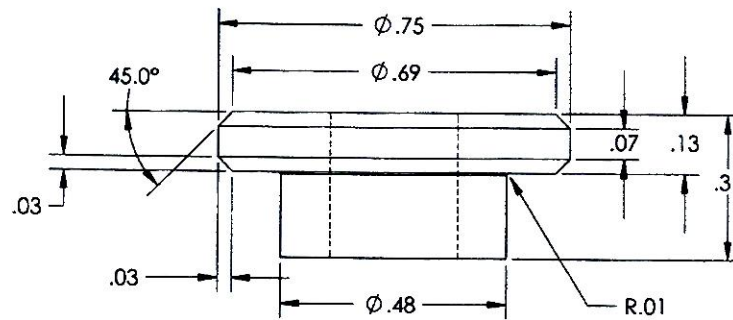


644.4112
SPACER

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ORIGINAL DATE 08-01-05	APICAL INDUSTRIES	
DRAWN BY D. PARROTT	2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
CHECKED BY S. JOSEPH	PIVOT STEP ASSY	
DRAWING APPROVAL S. JOSEPH 08-29-05	SCALE NONE	
CONTRACT NO.	SHEET 4 OF 16	REV. F
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.010 3 PLACE DECIMALS ±.005 ANGLES ±.5°		DWG. NO. 644.4100

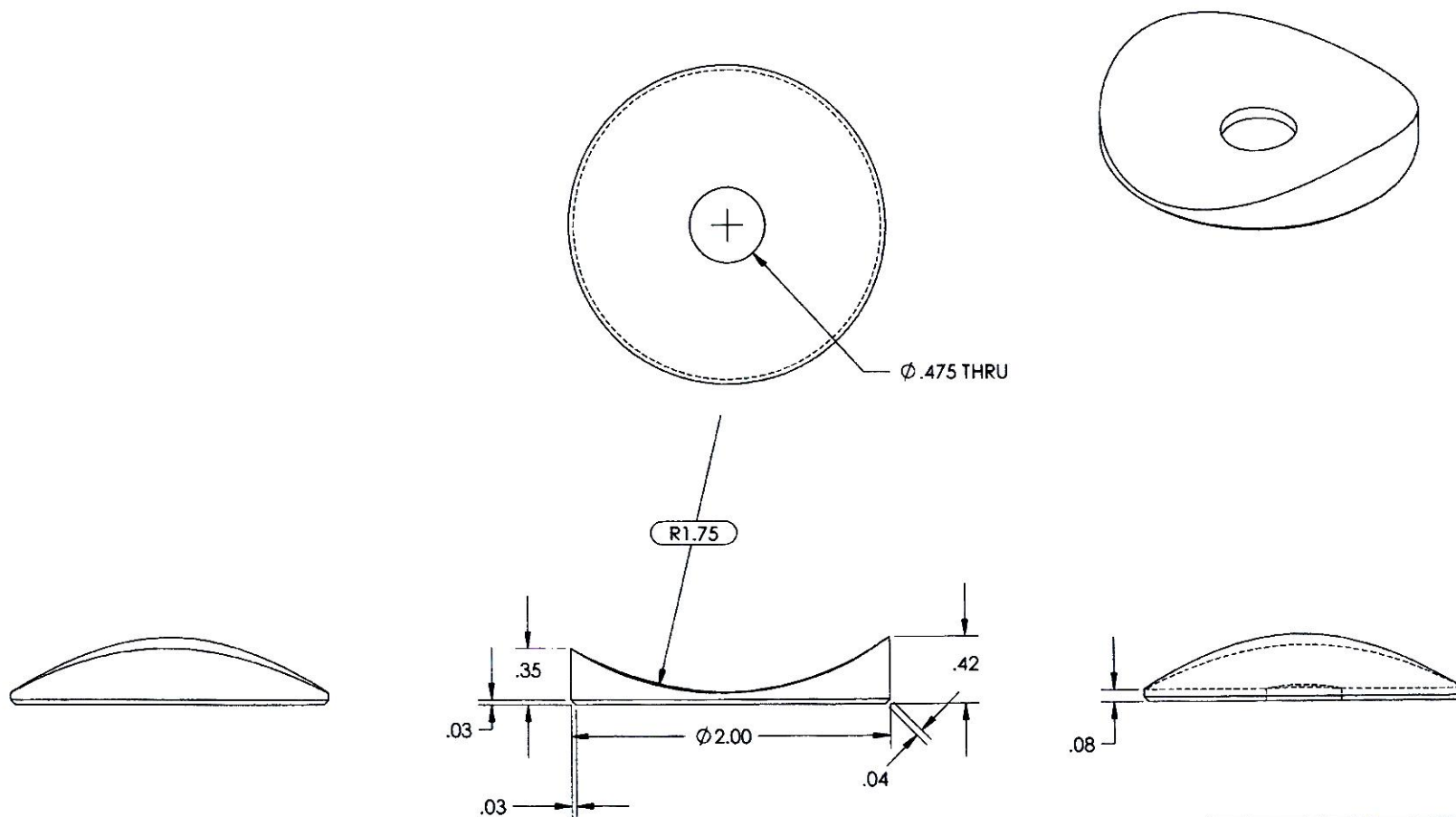
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644.4100
SPACER, STOP

ORIGINAL DATE 08-01-05		APICAL INDUSTRIES	
DRAWN BY J. JOSEPH		2608 TEMPLE HEIGHTS DR.	
DRAWING APPROVAL J. JOSEPH 08-01-05		OCEANSIDE, CA. 92056-3512 (760)724-5300	
CONTRACT NO.		PIVOT STEP ASSY	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 3 PLACE DECIMALS ± .01 ANGLES ± .5°		REV B	REV F
SCALE NONE		SHEET 5 OF 16	

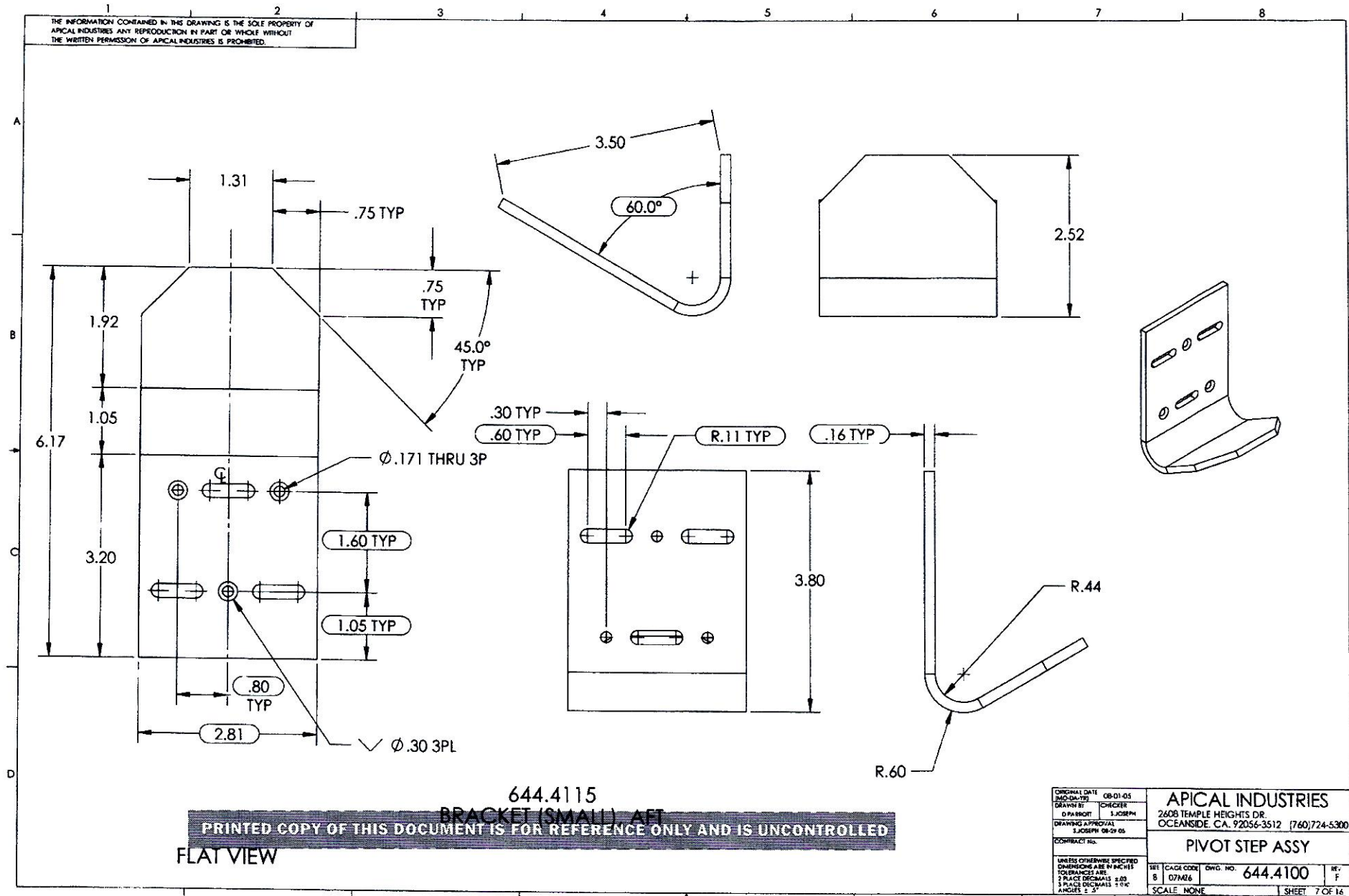
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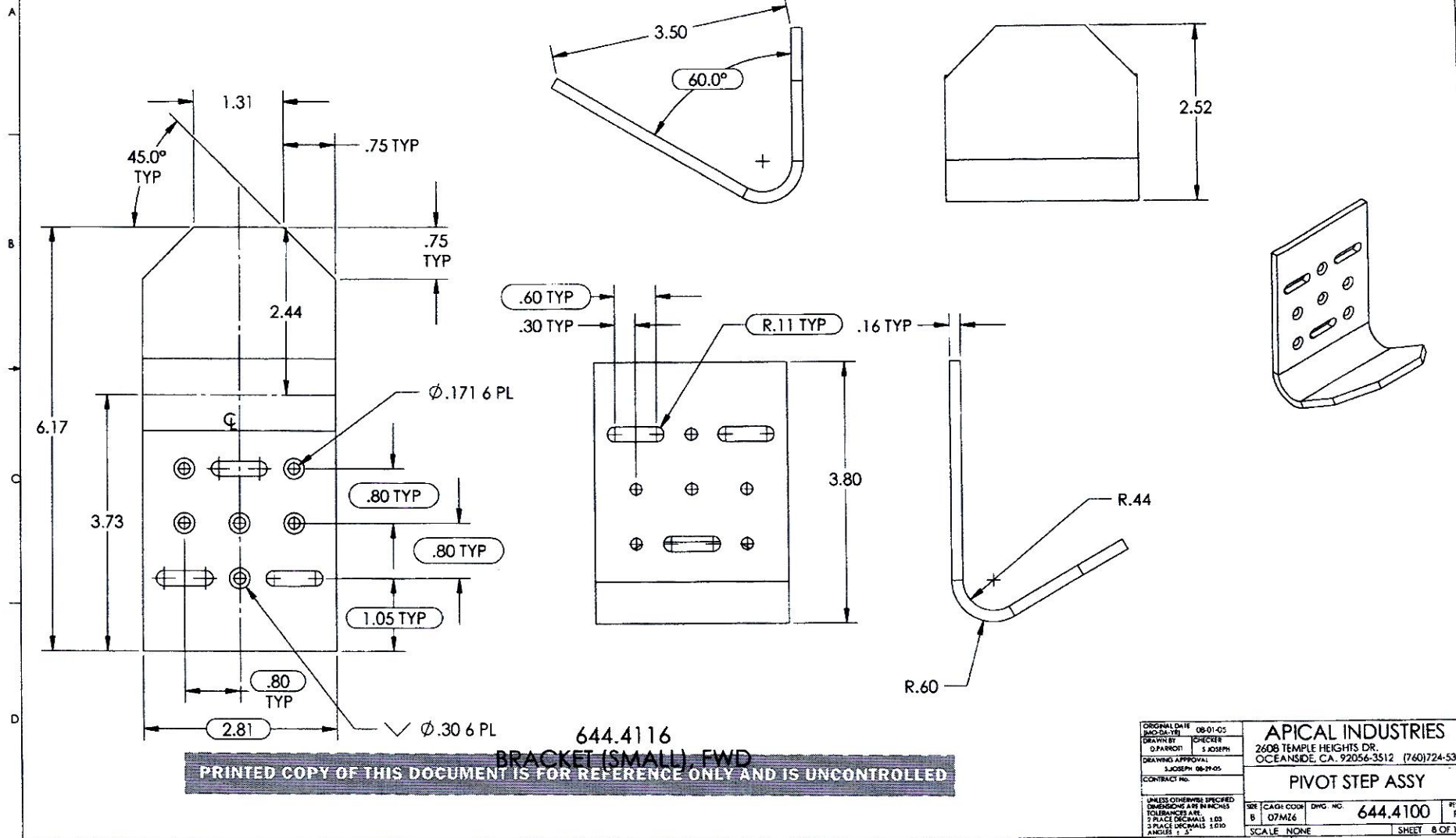
644.4114
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ORIGINAL DATE: 08-01-05		APICAL INDUSTRIES	
DRAWN BY: D. PARROTT		2608 TEMPLE HEIGHTS DR.	
CHECKED BY: S. JOSEPH		OCEANSIDE, CA. 92056-3512 (760) 724-5300	
DRAWING APPROVAL: S. JOSEPH 08-27-05		PIVOT STEP ASSY	
CONTRACT NO.		SIZE: B	SCALE: NONE
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS $\pm .01$ 3 PLACE DECIMALS $\pm .001$ ANGLES $\pm .5^\circ$		DWG. NO: 644.4100	REV: F
		SHEET 6 OF 16	

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ORIGINAL DATE	08-01-05	APICAL INDUSTRIES	
DRAWN BY	D. PARSON	2608 TEMPLE HEIGHTS DR.	
CHECKED BY	S. JOSEPH	OCEANSIDE, CA. 92056-3512 (760)724-5300	
DRAWING APPROVAL	S. JOSEPH	PIVOT STEP ASSY	
CONTRACT NO.			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS .003 3 PLACE DECIMALS .0010 ANGLES 1°	SIZE	DWG. NO.	REV.
	B	07/M26	644.4100 F
	SCALE	NONE	SHEET 8 OF 16

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1 2 3 4 5 6 7 8

A

B

C

D

.30 TYP

.60 TYP

R.11 TYP

.80 TYP

.80 TYP

.85 TYP

4.06

5.56

4.97 TYP

4.56 TYP

3.21 TYP

1.84 TYP

1.07 TYP

1.41 TYP

R.75 2PL

R.1.13 2PL

R.26 2PL

R.63 2PL

4.14 TYP

4.59 TYP

4.55 TYP

.80 TYP

3.81

.13 TYP

4.31

2.81

R.50 TYP

R.63 TYP

3.50

Ø.171 6 PL

Ø.328 2 PL

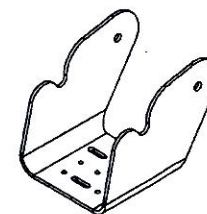
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BRACKET, FWD PIVOT

ORIGINAL DATE 08-01-05	DESIGNED BY S. JOSEPH	CHECKED BY S. JOSEPH
DRAWN BY S. JOSEPH	DRAWING APPROVAL S. JOSEPH 08-29-05	CONTRACT NO.
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.03 3 PLACE DECIMALS ±.01 ANGLES ±.5°		
SHEET B	CAGE CODE 07M26	DWG. NO. 644.4100
SCALE NONE		REV. F
SHEET 9 OF 18		

APICAL INDUSTRIES
2608 TEMPLE HEIGHTS DR.
OCEANSIDE, CA. 92056-3512 (760)724-5300

PIVOT STEP ASSY



ORIGINAL DATE 08-01-03	08-01-03	APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR CEON, ALA. 35056-3512 (767)724-5309			
DESIGNED BY D. B. PATTI	J. JOSEPH				
DRAWING APPROVAL J. JOSEPH	08-29-03	PIVOT STEP ASSY			
CONTRACT NO.					
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES 1/8" = 1'-0" 2 PLACES DECIMALS = 1/32" 3 PLACES DECIMALS = 1/64" ALL TOLERANCES ± .01"		SWR B	CAGE CODE 074M6	DWG. NO. 644.4100	REV. F
		SCALE: NONE		SHEET 9 OF 16	

1 2 3 4 5 6 7 8

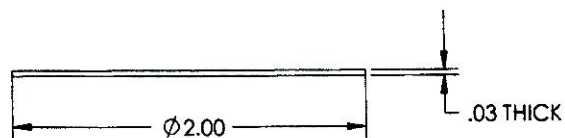
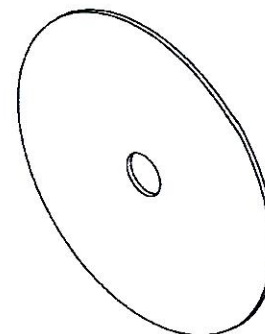
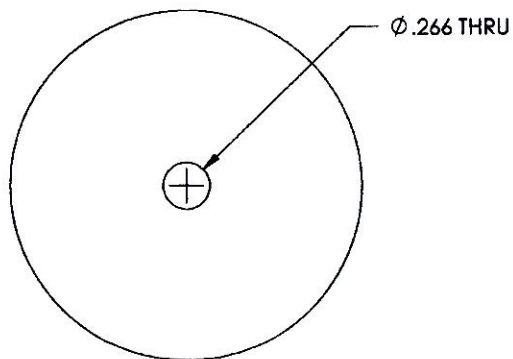
A

B

C

D

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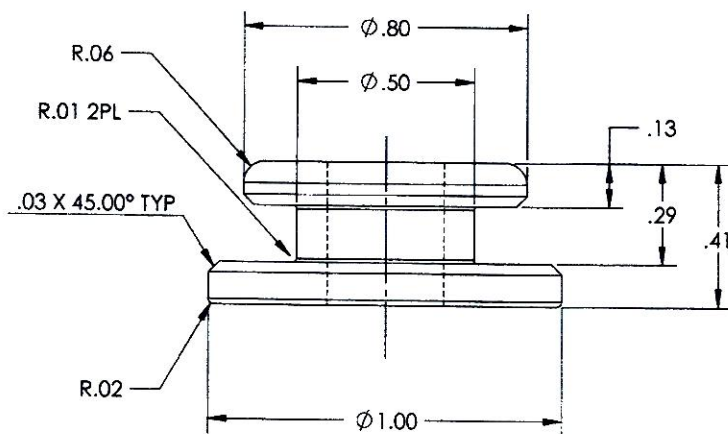
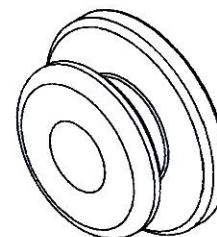
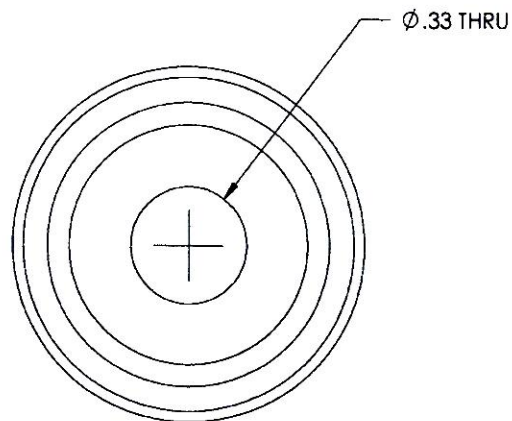


644.4118
WASHER, NYLON

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ORIGINAL DATE 08-01-05	APICAL INDUSTRIES	
DRAWN BY J. JOSEPH	2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
CHECKED BY J. JOSEPH	PIVOT STEP ASSY	
DRAWING APPROVAL J. JOSEPH 08-29-05		
CONTRACT NO.		
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ± .03 3 PLACE DECIMALS ± .010 ANGLES ± .5°	REV. CAGE CODE B 07M26	DWG. NO. 644.4100
SCALE NONE		SHEET 10 OF 14

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644.4112
SPACER FWD STOP
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ORIGINAL DATE 06-01-05		APICAL INDUSTRIES	
DRAWN BY D.P. FRECH		2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
DRAWING APPROVAL J. JOSEPH 08-29-05		PIVOT STEP ASSY	
CONTRACT NO.		REV	REV
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACES DECIMALS ±.02 3 PLACES DECIMALS ±.010 ANGLES ±.5°		B	F
CAGE CODE 07N26		DWG NO. 644.4100	SHEET 11 OF 16
SCALE NONE			

1 2 3 4 5 6 7 8

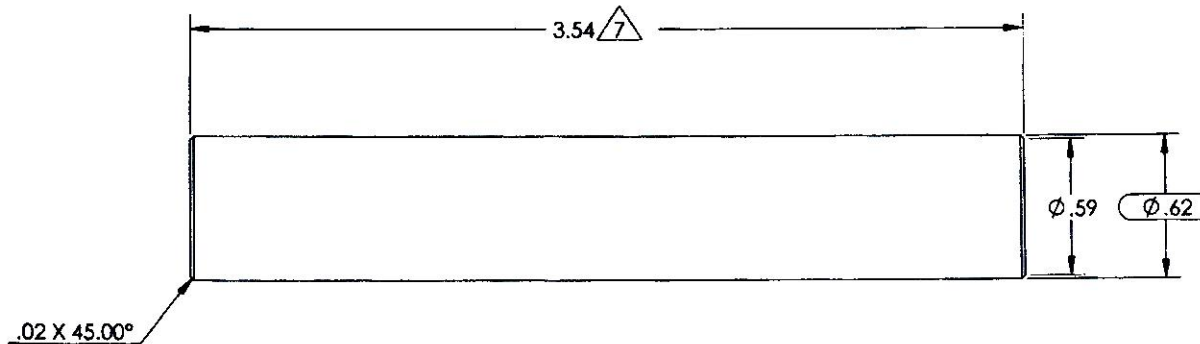
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A

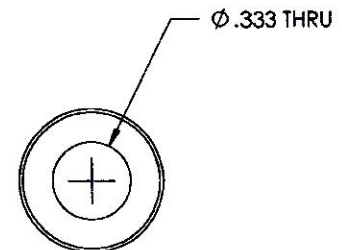
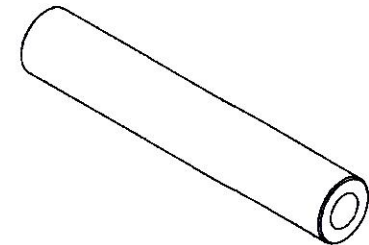
B

C

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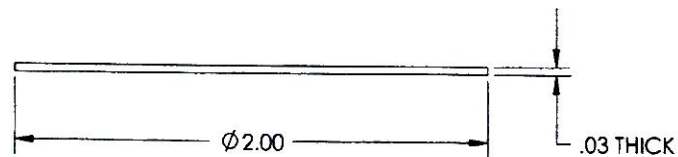
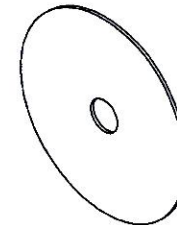
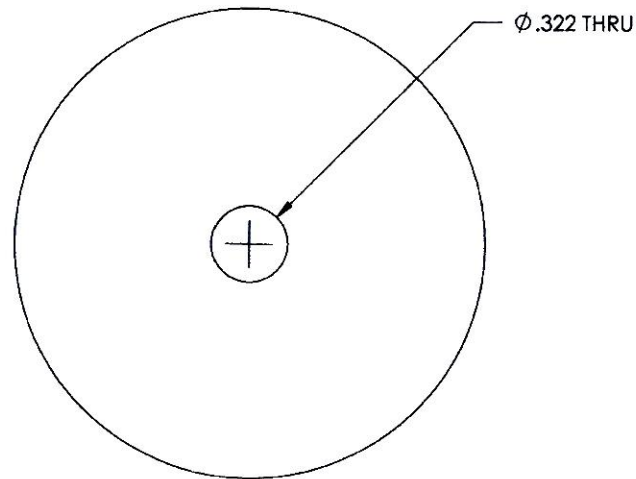
644.4120
SPACER, CROSS-TUBE



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ORIGINAL DATE 05-01-05	APICAL INDUSTRIES	
DRAWN BY D. J. BROWN	2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760) 724-5300	
DRAWING APPROVAL L. JOSEPH	PIVOT STEP ASSY	
CONTACT NO.	SHEET B	DWG NO. 644.4100
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 3 PLACE DECIMALS $\pm .003$ 2 PLACE DECIMALS $\pm .010$ ANGLES $\pm .5^\circ$	SCALE NONE	SHEET 12 OF 16

1 2 3 4 5 6 7 8
A
B
C
D
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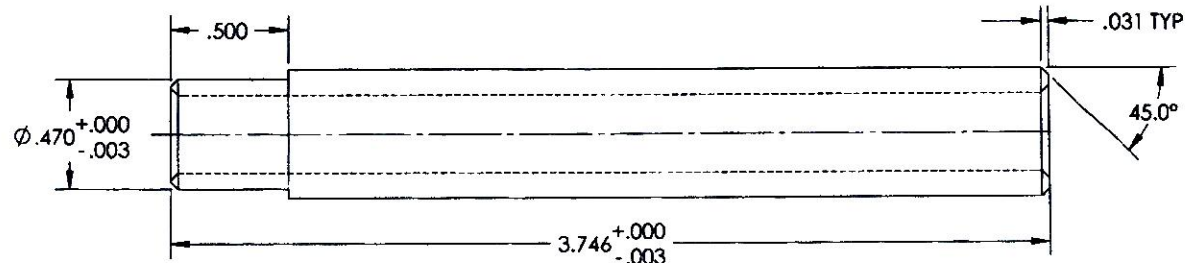
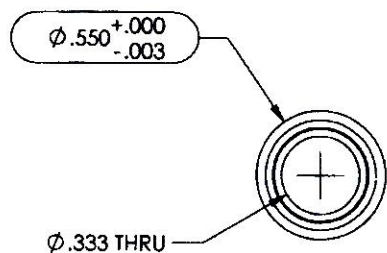
644.4121

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ORIGINAL DATE	08-01-05	APICAL INDUSTRIES	
DRAWN BY	C. JOSEPH	2608 TEMPLE HEIGHTS DR.	
CHECKED BY	S. JOSEPH	OCEANSIDE, CA. 92256-3512 (760)724-5300	
DRAWING APPROVAL	S. JOSEPH 08-29-05	PIVOT STEP ASSY	
CONTRACT NO.		SCALE	NONE
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5°		SHEET	13 OF 16

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ORIGINAL DATE 08-01-05		APICAL INDUSTRIES	
DRAWN BY J. JOSEPH		2608 TEMPLE HEIGHTS DR.	
CHECKED J. JOSEPH		OCEANSIDE, CA. 92056-3512 (760)724-5300	
DRAWING APPROVAL J. JOSEPH 08-24-05		PIVOT STEP ASSY	
CONTRACT NO.		SIZE 8	QWG NO. 644.4100
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 3 PLACE DECIMALS 1.250 2 PLACE DECIMALS 1.250 1 ANGLES 1.25		SCALE: NONE	SHEET 14 OF 16

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$\phi .550^{+.000}_{-.003}$

$\phi .333$ THRU

$\phi .466^{+.000}_{-.003}$

.500

$3.570^{+.000}_{-.003}$

.031 TYP

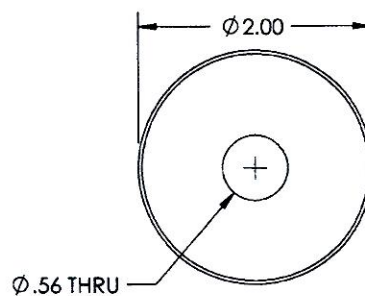
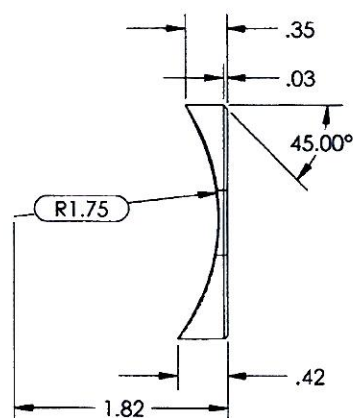
45.0°

644.4123

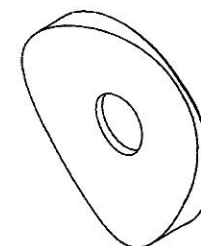
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ORIGINAL DATE 08-01-05		APICAL INDUSTRIES	
DRAWN BY O. PAIRICOTT		2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760) 724-5300	
DRAWING APPROVAL S. JOSEPH 08-29-05		PIVOT STEP ASSY	
CONTRACT NO.		SCALE: NONE	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 3 PLACE DECIMALS ± .003 2 PLACE DECIMALS ± .010 ANGLES ± .5°		SHEET 8	REV F
CAGE CODE 07M26		DWG. NO. 644.4100	
SHEET 15 OF 16			

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ORIGINAL DATE 08-01-05		APICAL INDUSTRIES	
DRAWN BY J. FARMER		2608 TEMPLE HEIGHTS DR.	
CHECKED J. JOSEPH		OCEANSIDE, CA. 92056-3512 (760)724-5300	
DRAWING APPROVAL 1.03.04 08-29-05		PIVOT STEP ASSY	
CONTRACT NO.		REV.	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS 1.00 3 PLACE DECIMALS 0.010 ANGLES 1.0°		REV. CAGE CODE B 07MZ6	DWG. NO. 644.4100
SCALE: NONE		SHEET 16 OF 16	